DOE F 1325.8
(8-89)
EFG (07 90)

United States Government | Department of Energy

memorandum

DATE JUL 19 1993

REPLY TO ATTN OF EM-40

SUBJECT Policy on the Use of Innovative Technologies in the Environmental Restoration Program

TO Distribution

A primary goal of the Environmental Restoration program is to clean up inactive facilities to standards and conditions consistent with planning decisions based on future land use and acceptable risk. Keeping the health and safety of workers and the public as the top priority, environmental restoration program managers are to develop and implement programs in the most cost effective and technically-feasible manner.

Integral to a successful program will be the selection of the remedial technologies best matched to the situation. Using a "technology push, requirements pull" philosophy, these technologies may be off-the-shelf, innovative or emerging. They may be either new or available and in use for applications other than remediation of hazardous waste sites. The EPA Office of Solid Waste and Emergency Response Directive 9380.0-17, June 10, 1991, establishes a number of initiatives for furthering the use of innovative technologies, particularly at Federal facilities. This directive states that innovative technologies should be considered in the remedy selection process for Superfund, Resource Conservation and Recovery Act, and Underground Storage Tanks and "should not be eliminated solely on the grounds that an absence of full-scale experience or treatability study data makes their operational performance and cost less certain than other forms of remediation."

While remediation technologies may be inserted into the RI/FS process at any time, early identification of technology needs will ensure fuller consideration in the screening and analysis of feasible alternatives. Further, if the technology needs assessment results in the early identification of an innovative or emerging technology, more time will be available to demonstrate the feasibility and applicability of that technology.

1. Program managers should identify and discuss the use of innovative and/or emerging remediation technologies in every primary document. The
2. availability, estimated cost and time to develop these technologies, and their expected performance should be addressed and evaluated with increasing thoroughness in each successive primary document submission. Constant dialogue should be maintained with all stakeholders, especially the regulatory officials, on the status of technologies being considered for remediation. Milestones for the delivery of primary documents, as well as the dates for completion of design documents and the start of construction, should be negotiated, and renegotiated if necessary, based on the technologies selected.

Remediation timelines, and milestone commitments, should be based on the difficulty of the problem being addressed and the availability of technologically-feasible solutions. If an interim remedial measure is taken, program managers are to ensure that a technology to effect the final remedial action is identified and in some stage of development. In a cost-conscious, threat-based decisionmaking process, program managers and their stakeholders cannot let themselves be driven solely by milestones arbitrarily set early in the process and before much of the information pertinent to the screening of alternatives and the final remedy selection is available. The availability and implementability of technologically-feasible remedies that efficiently and effectively solve specific problems must be recognized as the principal drivers behind a successful program.

For those problems with obvious solutions and ready, available technologies, progress can be shown and credibility gained by shortening the RI/FS process and initiating remediation as soon as possible. In contrast, those seemingly impossible environmental situations must be placed on reasonable schedules that provide the time necessary to identify, develop, and demonstrate technical solutions that solve the problem permanently.

The EPA directive acknowledges that there is inherent risk in the use of innovative technology, but encourages this risk taking because of the potential benefits to be gained. The Office of Environmental Restoration supports this EPA philosophy and is committed to implementing innovative technologies which can be applied successfully to remedial actions. Several programs are available to assist field managers in choosing candidate technologies for preferred remedy solutions. Descriptions of these programs and the respective points of contact are attached.

R. P. Whitfield
Deputy Assistant Secretary
for Environmental Restoration

Attachment

Distribution

Manager, Albuquerque Operations Office
Manager, Chicago Operations Office
Manager, Fernald Field Office
Manager, Idaho Operations Office
Manager, Nevada Operations Office
Manager, Oak Ridge Operations Office
Manager, Richland Operations Office
Manager, Rocky Flats Office
Manager, San Francisco Operations Office
Manager, Savannah River Operations Office

cc:
Assistant Manager for Energy and Special Programs
Albuquerque Operations Office
Assistant Manager for Projects and Energy Programs
Chicago Operations Office
Acting Assistant Manager for Environmental Restoration
Fernald Field Office
Assistant Manager for Environmental Restoration and Waste Management
Idaho Operations Office
Assistant Manager for Environmental Restoration and Waste Management
Nevada Operations Office
Assistant Manager for Environmental Restoration and Waste Management
Oak Ridge Operations Office
Assistant Manager for Environmental Management
Richland Operations Office
Assistant Manager for Environmental Management
Rocky Flats Office
Assistant Manager for Environmental Management and Support
San Francisco Operations Office
Assistant Manager for Environmental Restoration and Waste Management
Savannah River Operations Office

Assistance Programs for Selecting Technology Options

The Office of Environmental Restoration sponsors and maintains several programs which can assist field managers in choosing candidate technologies for preferred remedy solutions.

TECHNOLOGY NEEDS CROSSWALK

Crosswalk is a problem-solver's decision support tool which links site personnel working on DOE environmental restoration problems with their technology development counterparts. Crosswalk offers specific information on more than 350 DOE site problems and on 270 technology development projects authorized by the DOE Office of Technology Development Technical Risk Plans. This information can be accessed through an easy-to-use, hard-copy reference manual or through a simple relational "Keyword File and Keyword Search" program on a computer disk. Information and instructions on how to use Crosswalk can be obtained from Dr. Jack Duray, RUST Geotech, Inc., 303-248-6702.

TECHNOLOGY SEARCH PROGRAM

The Technology Search Program (TSP) focuses technologies and services which are available from the domestic and international private sectors. The TSP is a source for standard technology descriptions, literature, and preliminary screening of usable technologies, i.e. technologies with previous verifiable use in non-DOE applications but which also may be adapted to environmental restoration problems, in the near term. Information and instructions on how to access the TSP can be obtained from Dr. Dale Pflug, Argonne National Laboratory, 708-252-6682.

NATIONAL TECHNOLOGY INFORMATION EXCHANGE WORKSHOPS

The National Technology Information Exchange (TIE) Workshops are held semiannually in May and November for the purpose of exchanging working-level information, and experiences, and sharing of lessons-learned between environmental restoration site personnel who are doing the work. These popular workshops have been instrumental in developing a growing sense of community and continuity across the DOE complex resulting in significant savings of program time and funds. The contact for TIE information is Ms. Angie Smibert, Management Systems Laboratories, 703-231-3572.

TECHNOLOGY INTEGRATION SUPPORT SYSTEM

The Technology Integration Support System (TISS) supports the Office of Technology Development by providing a central focus for information exchange between DOE and industry, universities, and other Federal agencies. The system provides a toll free "1-800" number and central point of contact for questions about procurement, environmental technology needs, and environmental technology applications. To obtain access to the service, please call 1-800-845-2096.

TECHNOLOGY CATALOGUE

The Office of Technology Development is preparing an information catalogue which will feature various Environmental Restoration and Restoration and Waste Management Technologies. Its primary emphasis will be consolidated performance data on EM technologies, which have been successfully demonstrated under laboratory conditions, field tested and are ready for deployment. For further information, contact Joseph B. Paladino, Office Of Technology Development on 301-903-7449.

VENDOR INFORMATION SYSTEM FOR INNOVATIVE TREATMENT TECHNOLOGIES (VISITT)

This database has been developed by the USEPA Technology Innovation Office as part of a broad effort to promote the use of innovative treatment technologies for the cleanup of soil and groundwater contaminated by hazardous and petroleum waste. VISITT is designed to capture current information on the availability, performance, and cost of innovative treatment to remediate contaminated waste sites. VISITT is available at no charge on diskettes to registered users. The accompanying form may be used to order the diskettes and to become a registered user eligible for subsequent system updates. For more information, call Wendy Butler at 202-260-4376.

Ordering VISITT 2.0 Is Fast and Easy

VISITT 2.0 is available at no charge. To order the VISITT diskettes and user manual, and to become a registered user, fill out the Order and Registration Form below and mail or fax it to the location indicated. Registered users will receive information on subsequent updates of the system.

The VISITT hotline and software support are provided by PRC Environmental Management, Inc. for the Technology Innovation Office under Contract No. 68-C0-0047. Linda Fiedler is the U.S. EPA project manager.

Special Note to EPA Staff: TIO is working directly with EPA headquarters and Regional offices, EPA laboratories, and EPA libraries to install VISITT on LANs and at workstations. For more information, contact the VISITT hotline.

U.S. EPA Vendor Information System for Innovative Treatment Technologies (VISITT) Version 2.0 Order/Registration Form

Mail to: U.S. EPA/NCEPI
P.O. Box 42419
Cincinnati, OH 45242-0419

Or

Fax to: U.S. EPA/NCEPI
513-891-6685
(Verification only: 513-891-6561)

Please type or print legibly. Allow 3–4 weeks for delivery.

Name _____

Company/Agency _____

Street _____

_____

City _____ State _____ Zip Code _____

Country _____

Telephone Number _____

Diskette size (check one): 3 1/2" _____ 5 1/4" _____

Date Ordered _____